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EXAMINER

NOGUEROLA, ALEXANDER STEPHAN

ART UNIT	PAPER NUMBER
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1795

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,503	Applicant(s) BLACKBURN ET AL.	
	Examiner ALEX NOGUEROLA	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/17/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Double Patenting Rejections based on US 6,290,839 B1

2. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 5 and 14 of U.S. Patent No. 6,290,839 B1 in view of Ackley US 5,728,532 (“Ackley”), Anderson et al. US 5,922,591 (“Anderson”), Besemer et al. US 5,945,334 (“Besemer”), and Krihak et al. US

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5,945,286 (“Krihak”). Although the conflicting claims are not identical, they are not patentably distinct from each other because

(a) it would have been obvious to one with ordinary skill in the art the time of the invention to have the capture ligands covalently attached to their respective detection electrodes, such as taught by Krihak (the abstract), because this would be a more secure attachment than with a weaker bond, such as van der Waals forces;

(b) claim 5 requires electrophoresis transport, which suggests a volume of fluid to be contained and thus a detection chamber. Additionally, a detection chamber will protect the sample from environmental disturbance and from contamination;

(c) it would have been obvious to one with ordinary skill in the art the time of the invention to provide an array of detection electrodes because this will allow many different analytes in the sample to be detected simultaneously if each detection electrode has a probe for a different analyte. Moreover, as shown by Ackley, for example, it was known at the time of the invention to provide an array of detection electrodes to which different probes have been immobilized. See the abstract; Figure 4; col. 01:-9-32; col. 02:24-34; and

(d) It would have been obvious to one with ordinary skill in the art at the time of the invention to mix the sample as taught by Anderson and Besemer because claim 14 requires hybridization and as taught by Anderson, “Typically, sample is mixed during hybridization to enhance hybridization of nucleic acids in the sample to nucleic [sic] acid probes on the array,” and as taught by Besemer mixing shortens the incubation period of hybridization. See in Anderson col. 15:04-11 and in Besemer col. 15:39-41.

3. Claim 2 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 5, 14, and 8 of U.S. Patent No. 6,290,839 B1 in view of Ackley US 5,728,532 ("Ackley"), Anderson et al. US 5,922,591 ("Anderson") and Besemer et al. US 5,945,334 ("Besemer"), and Krihak et al. US 5,945,286 ("Krihak"). Claim 1, from which claim 2 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 8 implies a capture ligand comprising a nucleic acid since the analyte may be a nucleic acid.

4. Claim 3 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 5 and 26 of U.S. Patent No. 6,290,839 B1 in view of Ackley US 5,728,532 ("Ackley"), Anderson et al. US 5,922,591 ("Anderson") and Besemer et al. US 5,945,334 ("Besemer"), and and Krihak et al. US 5,945,286 ("Krihak"). Claim 1, from which claim 3 depends, has been addressed above. Although the conflicting claims are not identical, they are not

patentably distinct from each other because claim 26 requires the detection electrode to comprise a self-assembled monolayer

5. Claim 4 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claim 5 of U.S. Patent No. 6,290,839 B1 in view of Zanzucchi et al. US 5,585,069 ("Zanzucchi") and Batchelder US 4,390,403 ("Batchelder"). Claim 1, from which claim 4 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because although the claims of U.S. Patent No. 6,290,839 B1 and Anderson and Besemer do not mention accomplishing mixing by applying an AC/DC pulse (interpreted to mean AC or DC pulse) it was known at the time of the invention to use an AC field or non-uniform field to stir reactants in a microfluidic chamber. See in Zanzucchi the abstract and col. 08:20-26 and in Batchelder the abstract and col. 08:60-64. Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution. Note also that Anderson discloses electrophoresis mixing (col. 15:04-19), which suggests mixing using a pulsed DC field (many times reversing, that is pulsing, a DC field).

6. Claims 5 and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claim 5 of U.S. Patent No. 6,290,839 B1 in view of Zanzucchi et al. US 5,585,069 ("Zanzucchi"). Claim 1, from which claim 5 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because although the claims of U.S. Patent No. 6,290,839 B1 and Anderson and Besemer do not mention accomplishing mixing through the use of mixing particles, particularly microparticulate matter, it was known at the time of the invention to use microparticulate matter (Zanzucchi - col. 08:20-26. The mixing particles are implicitly microparticulate since the wells have micron sized dimensions – col. 07:11-14). Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

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7. Claim 7 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 5 and 8 of U.S. Patent No. 6,290,839 B1 in view of Ackley US 5,728,532 ("Ackley"), Anderson et al. US 5,922,591 ("Anderson") and Besemer et al. US 5,945,334 ("Besemer"), and Krihak et al. US 5,945,286 ("Krihak"). Claim 1, from which claim 7 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because Anderson discloses electrophoresis mixing (col. 15:04-19).

Double Patenting Rejections based on US 6,264,825 B1

8. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13 and 27 of U.S. Patent No. 6,264,825 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one with ordinary skill in the art the time of the invention to (a) provide a detection chamber because claim 13 requires flowing sample past the detection electrode, which suggests a volume of fluid to be contained. Additionally, a detection chamber will protect the sample from environmental disturbance and from contamination; and (b) claim 27 requires mixing the sample.

9. Claim 2 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13, 27, and 17 of U.S. Patent No. 6,264,825 B1. Claim 1, from which claim 2 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 13 requires detecting a target nucleic acid sequence in the sample, which implies that the capture ligand comprising a nucleic acid.

10. Claim 3 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13, 27, and 17 of U.S. Patent No. 6,264,825 B1. Claim 1, from which claim 3 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 17 requires the detection electrode to comprise a self-assembled monolayer.

11. Claim 4 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13 and 27 of U.S. Patent No. 6,264,825 B1 and in view of Zanzucchi et al. US 5,585,069 ("Zanzucchi") and Batchelder US 4,390,403 ("Batchelder"). Claim 1, from which claim 4 depends, has

been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because it was known at the time of the invention to use an AC field or non-uniform field to stir reactants in a microfluidic chamber. See in Zanzucchi the abstract and col. 08:20-26 and Batchelder US 4,390,403 ("Batchelder"). Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

12. Claims 5 and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13 and 27 of U.S. Patent No. 6,264,825 B1 in view of Zanzucchi et al. US 5,585,069 ("Zanzucchi"). Claim 1, from which claim 5 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because although the claims of U.S. Patent No. 6,264,825 B1 do not mention accomplishing mixing through the use of mixing particles, particularly microparticulate matter, it was known at the time of the invention to use microparticulate matter (Zanzucchi - col. 08:20-26. The mixing particles are implicitly microparticulate since the wells have micron sized dimensions – col. 07:11-14). Barring a contrary showing, the

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choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

13. Claim 7 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13, 27, and 17 of U.S. Patent No. 6,264,825 B1 and Anderson et al. US 5,922,591 ("Anderson"). Claim 1, from which claim 7 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because a variety of mixing methods, including electrophoretic mixing, was known at the time of the invention. See, for example, col. 15:04-15 in Anderson. Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

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14. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the combination of claims 13 and 27 of U.S. Patent No. 6,264,825 B1. Claim 1, from which claim 8 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 27 has the limitation "... wherein the configuration of said detection electrode results in mixing of said sample."

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. Claims 1, 2, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorp et al. US 5,968,745 ("Thorp") in view of Ackley US 5,728,532 ("Ackley"), Anderson et al. US 5,922,591 ("Anderson") and Besemer et al. US 5,945,334 ("Besemer").

Addressing claim 1, Thorp discloses a method of detecting a target analyte in a sample comprising:

a) adding said sample to a detection chamber (Figures 2 and 6; col. 04:09-14 and col. 14:31-33), comprising a covalently attached capture ligand (col. 02:22-26; col. 03:01-8; col. 03:66 – col. 04:05; col. 14:62-65; and col. 16:58-66.);

b) allowing the target analyte to bind to the capture ligand to form an assay complex, wherein said assay complex further comprises at least one electron transfer moiety (ETM) (see Figure 2 and Example 10, which begins in column 18. In this example the electron transfer mediator is $\text{Ru}(\text{bpy})^{2+}$);
and

c) detecting the presence of said ETM using the detection electrode (see Examples 8 and 10 in columns 17 and 18, respectively).

Thorp does not mention providing an array of detection electrodes. However, this is merely multiplication of parts for multiplication of the desired effect. Providing an array of detection electrodes will allow many different analytes in the sample to be detected simultaneously if each detection electrode has a probe for a different analyte. Moreover, as shown by Ackley, for example, it was known at the time of the invention to provide an array of detection electrodes to which different probes have been immobilized. See the abstract; Figure 4; col. 01:-9-32; col. 02:24-34.

Thorp also does not mention mixing the sample when it is contacted with the capture ligand. Anderson and Besemer discloses mixing target sample such that target analyte binds to capture ligand to form an assay complex. See in Anderson col. 02:19-38; col. 12:50-56; and col. 15:04-11 and in Besemer col. 01:61-64 and col. 15:15-44. It would have been obvious to one with ordinary skill in the art at the time of the invention

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to mix the sample as taught by Anderson and Besemer in the invention of Thorp as modified by Ackley because Thorp as modified by Ackley perform hybridization and as taught by Anderson, "Typically, sample is mixed during hybridization to enhance hybridization of nucleic acids in the sample to nucleoc [sic] acid probes on the array," and as taught by Besemer mixing shortens the incubation period of hybridization. See in Anderson col. 15:04-11 and in Besemer col. 15:39-41.

Addressing claim 2, for the additional limitation of this claim see in Thorp the abstract and Table 1 in column 15.

Addressing claim 7, for the additional limitation of this claim note a variety of mixing methods, including electrophoretic mixing, was known at the time of the invention. See, for example, col. 15:04-15 in Anderson. Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

19. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorp et al. US 5,968,745 ("Thorp") in view of Ackley US 5,728,532 ("Ackley"), Anderson et al. US 5,922,591 ("Anderson") and Besemer et al. US 5,945,334 ("Besemer") as applied to claims 1, 2, and 7 above, and further in view of Krihak et al. US 5,945,286 ("Krihak").

Thorp as modified by Ackley, Anderson, and Besemer does not mention providing the detection electrodes with a self-assembled monolayer.

Krihak discloses an electrochemical-based molecular detection apparatus and method using a nucleic acid probe covalently bonded to an electrode and self-assembled layer covering portions of the electrode not having attached probes. See the abstract and col. 03:46-52. It would have been obvious to one with ordinary skill in the art at the time of the invention to provide a self-assembled monolayer as taught by Krihak in the invention of Thorp as modified by Ackley, Anderson, and Besemer because as taught by Krihak, "This prevents oxidation/reduction of intercalator molecules [ETMs] to the surface of" the electrode. See the abstract and col. 03:46-52.

20. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorp et al. US 5,968,745 ("Thorp") in view of Ackley US 5,728,532 ("Ackley"), Anderson et al. US 5,922,591 ("Anderson") and Besemer et al. US 5,945,334 ("Besemer") as applied to

claims 1, 2, and 7 above, and further in view of Zanzucchi et al. US 5,585,069 (“Zanzucchi”) and Batchelder US 4,390,403 (“Batchelder”).

Thorp as modified by Ackley, Anderson, and Besemer does not mention accomplishing mixing using an AC field or DC pulse, although Anderson does disclose electrophoresis mixing (col. 15:04-19), which suggests mixing using a pulsed DC field (many times reversing, that is pulsing, a DC field). Also, at the time of the invention it was known to use an AC field or non-uniform field to stir reactants in a microfluidic chamber. See in Zanzucchi the abstract and col. 08:20-26 and Batchelder US 4,390,403 (“Batchelder”). Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

21. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorp et al. US 5,968,745 (“Thorp”) in view of Ackley US 5,728,532 (“Ackley”), Anderson et al. US 5,922,591 (“Anderson”) and Besemer et al. US 5,945,334

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("Besemer") as applied to claims 1, 2, and 7 above, and further in view of Zanzucchi et al. US 5,585,069 ("Zanzucchi").

Thorp as modified by Ackley, Anderson, and Besemer does not mention accomplishing mixing through the use of mixing particles, particularly microparticulate matter. However, it was known at the time of the invention to use microparticulate matter for mixing (Zanzucchi -col. 08:20-26. The mixing particles are implicitly microparticulate since the wells have micron sized dimensions – col. 07:11-14). Barring a contrary showing, the choice of mixing method from known mixing methods was within the skill of one with ordinary skill in the art at the time of the invention. The choice of mixing method would be based on convenience of incorporating the necessary mixer elements into the detection device and the desired degree of agitation, for example, highly turbulent mixing or mild mixing of reagent in the solution.

Information Disclosure Statement

22. Applicants are requested to provide copies of the following references that are listed in the Information Disclosure Statement (IDS) filed on March 17, 2006, but were not provided with the instant application and are missing from parent application 09/520,477, in which the IDS states they are supposed to be located

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B1-B12, B15, B17, B20-B31, B37-B40, B43, B51-B55, C1-C3, C4-C12, C14, C16-C20, C21-C31, C33-C35, C36-C38, C41-C43, C45-C47, C49, C50, C51-C53, C55-C59, C62-C65, C66, C67, C69-C74, C76-C81, C82-C89, C91-C95, C96-C103, C107-C111, C112-C116, C118-C120, C123-C126, C127-C135, C137, C138, C140, C141, C142-C146, C149-C155, C157, C158, C160-C166, and C168.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX NOGUEROLA whose telephone number is (571) 272-1343. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NAM NGUYEN can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Alex Noguera/
Primary Examiner, Art Unit 1795